

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**LOK SABHA**  
**UN-STARRED QUESTION NO.3057**  
TO BE ANSWERED ON 06.08.2021

**Losses due to Climate Change**

3057. SHRIMATI MALA RAJYA LAXMI SHAH:  
SHRI RAMSHIROMANI VERMA:  
SHRI KUNWAR PUSHPENDRA SINGH CHANDEL:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether the Government has made any assessment of losses incurred in agriculture and other sectors due to the climate change during the last twenty years;
- (b) if so, the details thereof;
- (c) the details of the steps being taken by the Government to reduce and prevent the impact of climate change in the country including Uttarakhand and Bundelkhand; and
- (d) the efforts made and targets achieved in reducing the impact of climate change during the last three years?

**ANSWER**

**MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE**  
**(SHRI ASHWINI KUMAR CHOUBEY)**

(a) and (b) Climate model simulation studies done by various agencies including the Intergovernmental Panel on Climate Change (IPCC) project possible linkages of climate change with frequency and intensity of weather-related events. However, the causal link between climate change and loss of life and property or financial loss is difficult to establish.

(c) Government is implementing the National Action Plan on Climate Change (NAPCC) which provides the overarching framework for climate actions, through eight national missions in specific areas of solar energy, enhanced energy efficiency, water, agriculture, Himalayan eco-system, sustainable habitat, green India and strategic knowledge on climate change. These Missions are institutionalized and implemented by their respective nodal Ministries. Under the NAPCC's overarching framework, thirty-three (33) States /UTs have prepared State Action Plans on Climate Change (SAPCC). Further, to support adaptation measures in States / UTs in areas that are particularly vulnerable to the adverse impacts of climate change, Government is implementing the National Adaptation Fund for Climate Change (NAFCC). Under NAFCC, 29 projects in 27 States/UTs have been sanctioned for adaptation in agriculture, water, forestry, etc.

Under NAFCC, a project titled 'Ecosystem services based adaptation to climate change in Bundelkhand region of Uttar Pradesh' is being implemented covering four forest divisions viz. Banda, Hamirpur, Orai (Jalaun) and Chitrakoot. The project aims to restore degraded forest areas with involvement of local communities and improve community/grazing land, grassland and adjoining lands through agroforestry. Households in the project areas are being supported for informed decision making in light of vulnerability to climate change.

In Uttarakhand, a project under Adaptation Fund (of the United Nations Framework Convention on Climate Change) titled ‘Climate smart actions and strategies in north western Himalayan region for sustainable livelihoods of agriculture-dependent hill communities’ is being implemented. The project supports climate smart interventions in sustainable livelihood management by means of spring rejuvenation, roof top rainwater harvesting, introduction of Drip Irrigation for increased water use efficiency and introduction of improved horticulture varieties and high value vegetable cultivation under protected conditions using bamboo-based poly houses etc. The communities in the project areas were provided training and exposure visits for understanding vulnerability and adaptation to climatic change.

Indian Council of Agricultural Research (ICAR), Ministry of Agriculture and Farmers Welfare, Government of India launched a flagship network project ‘National Innovations in Climate Resilient Agriculture’ (NICRA) in 2011. Under NICRA, climate resilient technologies were demonstrated in two (2) districts of Uttarakhand (Tehri Garhwal and Uttarkashi) and three (3) districts each in Bundelkhand region of Uttar Pradesh (Chitrakoott, Hamirpur and Jhansi) and Madhya Pradesh (Tikamgarh, Datia and Chhatarpur).

(d) With domestic efforts, India’s emission intensity of Gross Domestic Product (GDP) has reduced by 24% between 2005 and 2016 against the pre-2020 voluntary goal of reducing it by 20-25% from 2005 levels by 2020. This indicates our continued efforts at decoupling growth from emissions. Forest and tree cover has increased by around 1.3 million ha between the 2015 and 2019 assessments of the Forest Survey of India. The Land Use and Land-Use change sector, under which forests and tree cover are included, removed 15% of the country’s carbon dioxide emissions in 2016, amounting to a net removal of about 307.82 million tonnes of CO<sub>2</sub> equivalent, increasing its status as a sink by 2.2% since 2014.

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